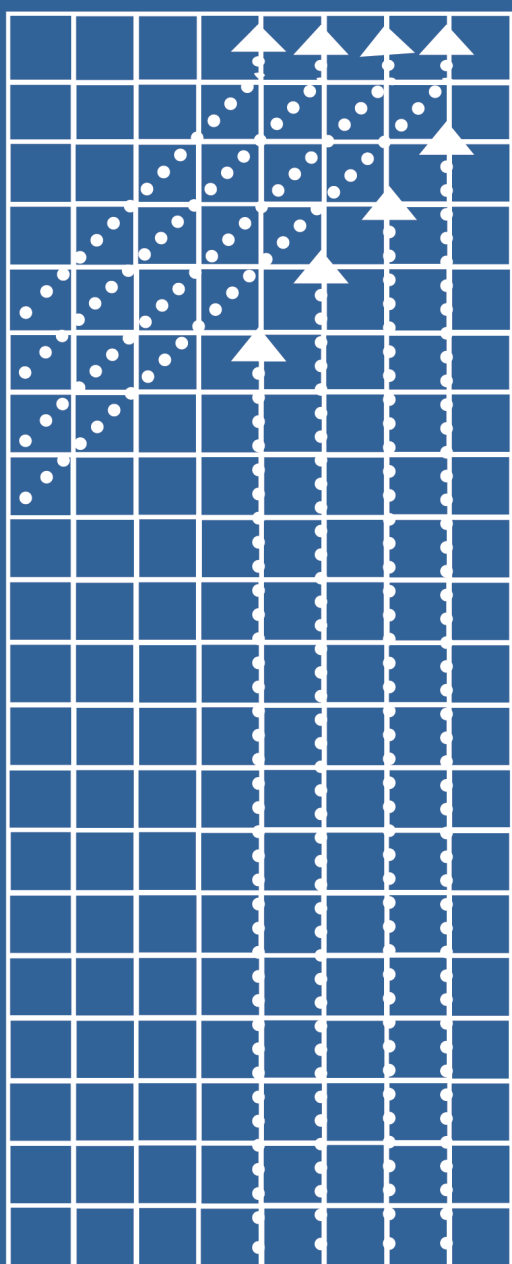


RESULTS FIRST CONNECTICUT



STATE OF CONNECTICUT

Results First

Benefit-Cost Analyses of Evidence-Based Programs

November 2019

INSTITUTE FOR MUNICIPAL
AND REGIONAL POLICY



Central Connecticut State University

Connecticut Results First Benefit-Cost Analyses of Evidence-Based Programs

**Pursuant to
Connecticut General Statutes, Sections 4-68r and -68s**

**Prepared by
Institute for Municipal and Regional Policy
New Britain, Connecticut**

November 2019

“Supposing is good, but finding out is better.”

-Mark Twain in *Eruption*; *Mark Twain’s Autobiography*

States, including Connecticut, spend billions of dollars annually on programs and services intended to address a population’s needs.

- ❖ Do these taxpayer-funded programs work? Do policymakers have information and can they use data to find out what programs achieve the desired outcome?
- ❖ What is the best return on the state’s investment?
- ❖ Is a program the most effective and appropriate intervention for addressing an identified need?
- ❖ How can Connecticut make the most of limited resources?
- ❖ Has Connecticut adopted a climate for decision-making that is based on research and evidence?

The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation started the Results First Initiative to help states and counties answer these questions. Results First promotes the use of evidence-based programs and supports ways to analyze their effectiveness. Since 2010, 27 states and 10 counties have applied customizable tools to inform policy and budget processes and direct funding to effective programs that are proven to work.

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EXECUTIVE SUMMARY AND KEY FINDINGS

- ❖ This report on evidence-based policymaking and budgeting is prepared by the Institute for Municipal and Regional Policy (IMRP). The IMRP manages the Results First Initiative in Connecticut – an evidence-based approach to policymaking and budgeting sponsored by the Pew-MacArthur collaboration. The November 2019 *Results First Benefit-Cost Analyses of Evidence-Based Programs* includes more program listings and analyses than prior years. We expect that this will start a conversation on what programs work and which need further evaluation.
- ❖ State law requires (1) five specified state agencies to submit their respective program inventories annually and (2) the Institute for Municipal and Regional Policy (IMRP) to publish an annual benefit-cost analyses report of programs identified in the inventories. Agencies and legislators making policy and budget decisions are encouraged to use program inventories and the resulting benefit-cost analyses to allocate resources, prioritize program offerings, and improve program effectiveness and outcomes.
- ❖ In 2019, three of the five agencies submitted program inventories (the Judicial Branch’s Court Support Services Division [JB-CSSD], the Department of Children and Families (DCF) and the Department of Correction [DOC]). The departments of Mental Health and Addiction Services (DMHAS), and Social Services (DSS) did not. According to DMHAS, the department has been working over the past year to collect the program and fiscal data for its inventory and continues its process for completing and submitting one. DSS has plans to complete a list and descriptions of its current programs. Both departments have indicated an interest in working with IMRP to pursue this effort.
- ❖ The three agencies submitted program inventories that listed a total of 159 programs and services, 92 of which were identified as evidence-based programs or services that include evidence-based programs.
- ❖ Of the 92 evidence-based programs and services, 38 programs are included in the Results First model and had marginal cost information allowing IMRP to calculate a Connecticut-specific benefit-cost analysis.
- ❖ Of the funding identified in their respective inventories, JB-CSSD spent 79% of their adult program funding and 86% of juvenile funding on evidence-based programs. DCF spent 20% and DOC spent 98% on such programs.

- ❖ As the Results First Initiative’s benefit-cost analyses and the underlying program inventories become more robust and sustainable, the state will be able to:
 - Identify the programs it funds and at what economic cost.
 - Target state, federal, and private funds to cost-beneficial, evidence-based programs.
 - Promote and support the use of technology for data collection and analysis.
 - Evaluate program implementation and fidelity.
 - Articulate program capacity and utilization to maximize participation in effective, evidence-based programs.
 - Allow adult criminal and juvenile justice agencies to share data to improve service delivery and reduce recidivism.
 - Use evidence and outcome data to inform decisions on where to prioritize limited resources.

- ❖ Future benefit-cost analyses can be improved by developing and sustaining the agency and analytic infrastructure to support improved decision-making. Steps include:
 - Supporting agencies with training and technical assistance.
 - Supporting technology development for data collection and program inventory reports.
 - Instituting routine program evaluations to assure program fidelity and overall effectiveness by dedicating in-agency personnel to assess state-run programs and including performance measures, program evaluation requirements, and more refined cost details in private provider contracts.
 - Dedicating adequate resources in each agency to support the preparation of complete and consistent program inventories.
 - Completing the update of Connecticut-specific data in the Results First model.
 - Training staff in evidence-based policy and budget decision-making.
 - Developing expertise in maintaining and utilizing the web-based Results First model.

- ❖ IMRP thanks agency staff for their efforts in providing the necessary data for the benefit-cost analyses.

GUIDE TO RESULTS FIRST BENEFIT-COST ANALYSES REPORT

The intent of this guide is to assist users of the “Results First Benefit-Cost Analyses of Evidence-Based Programs.” This report is produced by the Institute for Municipal and Regional Policy (IMRP) on November 1, 2019, in compliance with the legislative requirement (CGS § 4-68s) to conduct and report on benefit-cost analyses (BCA) of agency program inventories, also required by law. These BCA’s are developed in collaboration with the Results First Initiative, a project of the association between the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. The Washington State Institute for Public Policy (WSIPP) developed the econometric model used to produce the BCAs under this initiative. It includes modules on criminal and juvenile justice, pre-K through grade 12 education, child welfare, mental health, substance abuse, and public health. The Results First Initiative provided the benefit-cost model software and technical assistance for its use in compiling the program inventories.

The Results First model applies the best available national rigorous research on program effectiveness to predict the public safety and fiscal outcomes of each program category in Connecticut, based on the state’s unique population characteristics and the costs to provide these programs here. For each potential investment, the model produces separate projections of benefits that would accrue to program participants, nonparticipants, and taxpayers. These are summed to estimate a total state bottom-line benefit. The model then calculates the cost of producing these outcomes and the return on investment that Connecticut would achieve if it chose to appropriately fund each program and implement it with fidelity. Programs may then be compared on common terms as to long-term cost effectiveness.

The Results First program inventory template used by the agencies lists a great deal of information on Connecticut agency programs and is designed to include the information required to populate the model with state-specific data. Each agency’s program inventory must list all programs and identify them as evidence-based, research-based, or promising. In addition to the analyses that the inventories support, this categorization is helpful in promoting the effort to transition to more evidence-based programs. To the extent that the listed programs (1) are evidence-based as substantiated by rigorous research and included in the model and (2) have costs expressed appropriately, IMRP can match programs with those in the model and calculate the benefit-cost ratio.

Also important to this effort is the use of the Results First Clearinghouse Database. This one-stop online resource provides policymakers with an easy way to find information on the effectiveness of various interventions as rated by nine national research clearinghouses employing rigorous research and evidence rankings.

Since this is a tool intended to enhance policy and budget decision-making, it would be appropriate if the user’s review of the report was informed by a firm understanding of (1) statewide program priorities and how each state-funded agency fits into those priorities and (2) each agency priority and how its programs fit into those priorities. If these are not already understood, budget- and policymakers could begin by determining:

1. the state's program priorities (Vision, Mission, Goals, Objectives, Activities, etc.);
2. which agencies (and programs, if they cross agencies) advance these priorities; and
3. which priority agency's programs fit within the state priorities.

Note: Underlying this is the assumption that there is a validated current and forecast need for the program or service.

With this fundamental understanding, the Results First BCA report can be used as a tool to help inform decision-makers as to which of these inventoried, matched, and analyzed programs are likely the most productive (efficient and effective) at achieving the established priorities.

The programs with BCAs in Tables 1 and 2, show a benefit-cost ratio for each agency program within the Results First policy area for which the program inventory included the required data (e.g., a program's marginal cost). The information and format of these tables allow the user to review a particular benefit-cost ratio and also to compare programs based on that criterion.

For programs without BCAs in Tables 3, 4, and 5, the report shows an agency's programs as substantiated by WSIPP or in the Results First Clearinghouse as evidence-based, along with the funding for each and the percentage of all the agency's program budget.

The benefit-cost analysis is "[a] decision tool, not [a] decision rule." It is helpful in making decisions based on identified criteria and priorities and should not result in *de facto* decisions based on numbers. It helps to understand how activities compare on similar bases of operation and cost so that decisions conform to priorities, outcome expectations, and budgets.

I. STATUTORY CHARGE

Results First

This report is submitted pursuant to original 2015 legislation as amended in 2017, CGS §§ 4-68r and -68s (PA 15-5, June Special Session, §§ 486 – 487 and PA 17-2, June Special Session, § 247) (see Appendix A). This law advanced the work of the Results First project at Central Connecticut State University's Institute for Municipal and Regional Policy, which administers the Pew-MacArthur Results First Initiative.¹ Results First Connecticut initially focused on the agencies associated with adult criminal and juvenile justice policy (the Judicial Branch's Court Support Services Division and the departments of Children and Families, Correction, and Mental Health and Addiction Services) and their state-funded programs that are evidence-based. The effort now extends to all of those agencies' programs and those of the Department of Social Services (DSS). The analysis model developed by the Washington State Institute for Public Policy (WSIPP) relies on meta-analyses of national research and Connecticut-specific costs and participant data to produce a program's expected return on investment for the state. Initially, agencies' so-called program inventories are necessary in order to apply the Results First economic model. Then, IMRP must calculate the benefit-cost analyses (BCA) used to make policy and budget decisions. Agencies and legislators making policy and budget decisions might use program inventories and this report to allocate resources, prioritize program offerings, or improve program effectiveness and outcomes.

The 2015 law required JB-CSSD, DOC, DCF, and DMHAS to develop program inventories in even-numbered years that would provide the data for implementation of the Result First project. It included the provision requiring IMRP to develop annual benefit-cost analyses of the evidence-based adult criminal and juvenile justice programs listed in those inventories.

In 2017, the law was expanded by extending the program inventory requirement to include DSS and require all specified agencies to incorporate all programs, not just their criminal and juvenile justice programs. It also required annual, rather than biennial, program inventories. The IMRP benefit-cost analyses report must use the additional and expanded inventories as the basis for its annual report.

Program inventories must categorize programs as **evidence-based, research-based, or promising** and include the following information for the previous fiscal year:

1. a detailed program description and the names of providers,
2. the intended treatment population and outcomes,
3. total annual program expenditures and a description of funding sources,
4. the method for assigning participants,
5. the cost per participant,
6. the annual capacity for and the number of actual participants, and

¹ The Pew-MacArthur Results First Initiative, a project of the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, works with states to implement an innovative cost-benefit analysis approach that helps them invest in policies and programs that are proven to work. Additional information about Results First is available at <http://www.pewstates.org/projects/pew-macarthur-results-first-initiative-328069>.

7. an estimate of the number of people eligible for or needing the program.

In addition, IMRP's benefit-cost analyses may be included as part of OPM's and the Office of Fiscal Analysis' annual fiscal accountability report due by November 15 to the legislature's fiscal committees each year. Under the statute, "cost beneficial" means that the cost savings and benefits realized over a reasonable period of time are greater than the costs of a program's implementation.

By law, OPM must develop a plan to promote a more effective and cohesive state criminal justice system. To accomplish this, OPM must also review the program inventories and benefit-cost analyses and consider incorporating them in its budget recommendations to the legislature.

Other Related Mandated Efforts

In addition to the legislation enacted to implement the Results First Initiative in Connecticut, the General Assembly has passed and the governor has signed additional requirements intended to focus policy and budget decisions on results or performance-oriented programs. Specifically, two other provisions of the 2017 budget act require:

1. The Office of Policy and Management to create a pilot program applying the principles of the Results First Initiative benefit-cost analysis model to at least eight grant programs (CGS § 4-68s (e) and (f)) and
2. The legislature to identify at least one agency that must provide information and analyses for a performance-informed budget review for the governor and legislature to consider when developing the next biennial budget (CGS § 2-33b).

OPM had to create the pilot program by January 1, 2019 and submit a report by April 1, 2019, on the selected programs, the status of the pilot, and any recommendations. The General Assembly was to have selected one or more agencies to provide the specified information and analyses for the performance-informed budget review for development of the upcoming biennial budget. The act also established a legislative Subcommittee on Performance-Informed Budgeting.

Program Definitions

An "*evidence-based program*" incorporates methods demonstrated to be effective for the intended population through scientifically based research, including statistically controlled evaluations or randomized trials; can be implemented with a set of procedures to allow successful replication in Connecticut; achieves sustained, desirable outcomes; and, when possible, has been determined to be cost-beneficial.

A "*research-based program*" is a program or practice that has some research demonstrating effectiveness, such as one tested with a single randomized or statistically controlled evaluation, but does not meet the full criteria for evidence-based.

A "*promising program*" is a program or practice that, based on statistical analyses or preliminary research, shows potential for meeting the evidence-based or research-based criteria.

II. THE RESULTS FIRST INITIATIVE

BACKGROUND

Currently, the Pew-MacArthur Results First Initiative works with 15 states and six county jurisdictions to implement an innovative evidence-based policymaking approach and benefit-cost analysis model that helps them invest in policies and programs that are proven to work. It gives public officials the information they need to make policy and budget decisions based on probable outcomes and return on investment. It is intended to identify opportunities that effectively invest limited resources to produce better outcomes and potential savings.

Results First employs a sophisticated econometric model to analyze the costs and benefits of evidence-based programs across a variety of social policy areas. By calculating the long-term return on investment for multiple programs through the same lens, it produces results and comparisons that policymakers can use in planning and budgeting decisions.

Connecticut became an early participant in the Results First Initiative in March 2011 when Governor Dannel Malloy and legislative leaders submitted formal letters of support to Results First. To date, Connecticut's work with Results First has focused on conducting a comprehensive benefit-cost analysis of the state's adult criminal and juvenile justice programs and expanding the model to include additional policy areas.

RESULTS FIRST CLEARINGHOUSE DATABASE

As an additional aid in evaluating evidence-based programs, the Results First Initiative has created a [Results First Clearinghouse Database](#) that policymakers can use as a resource for information on program effectiveness. The database is a single, on-line compilation of research, literature reviews, and evaluations from nine different national clearinghouses on interventions in policy areas, including adult criminal and juvenile justice. Information on more than 2,900 interventions in the database rate program effectiveness and describe evaluations to identify interventions that work. While each separate clearinghouse has its own rating system, the Results First Clearinghouse Database assimilates these into one that easily conveys a common perspective on rated effectiveness.

Not all the programs in the clearinghouse are included in the Results First model for determining a benefit-cost analysis. However, the clearinghouse can be a useful tool to identify programs that have been evaluated as evidence-based and effective.

METHODOLOGY

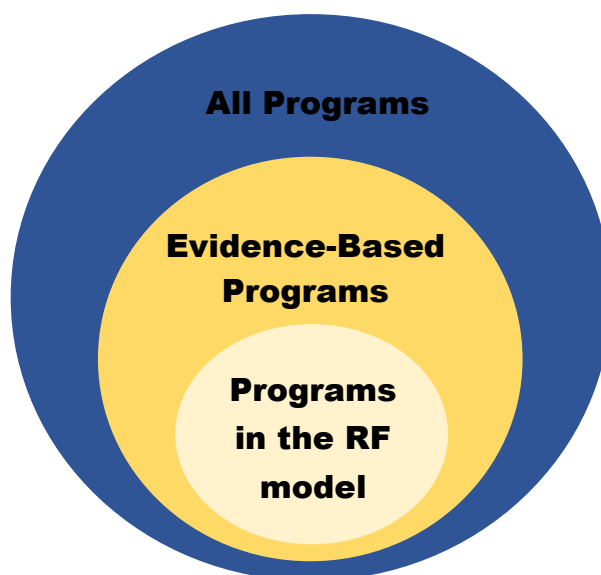
The Results First model, which was originally developed by the Washington State Institute for Public Policy, applies the best available, most rigorous national research on program effectiveness to the intended programmatic and fiscal outcomes of each program category in Connecticut, based on our unique population characteristics and the costs to provide these programs in this state. For each potential investment, the model produces separate projections of benefits that would accrue to program participants, nonparticipants, and taxpayers. These are summed to estimate a total state bottom-line benefit. The model then calculates the cost of

producing these outcomes and the return on investment on a per-participant basis that Connecticut would achieve if it chose to continue an appropriate level of funding and maintain fidelity to each program.

The Results First program inventory spreadsheet template is designed to provide the information required to populate the model with state-specific data. To the extent that the listed programs are (1) evidence-based as substantiated by rigorous research and included in the model and (2) have costs expressed appropriately, IMRP can match programs with those in the model and calculate the benefit-cost analysis.

FINDINGS OVERVIEW AND IMPLEMENTATION ASSESSMENT

The Results First project involves three distinct phases: (1) preparation of an agency's program inventory, complete with descriptions and specified participant and fiscal data for all its programs; (2) identification of those programs that are evidence-based and those that match the programs included in the Results First model; and (3) calculation of the benefit-cost analysis and return on investment for those programs that are in the Results First model. Agencies are responsible for assessing the programs they operate with their own staff and those for which they contract with private providers. Once they list all these programs, they must present the specified data for each.



Compiling a program inventory is a labor-intensive effort, involving an agency's program as well as fiscal staff. Some of the mandated agencies, while acknowledging the importance of offering evidence-base programs and collecting the supporting program data, have been unable to devote the program and fiscal staff hours necessary to compile a program inventory for this purpose.

In addition, we have found that in some cases, an agency lists a program that includes a variety of services or interventions offered alone or in some combination. If the agency is unable to isolate or disaggregate the costs of evidence-based services provided to clients under an umbrella program offering multiple interventions that can vary from client to client, then Results First cannot provide the benefit-cost analysis for each separate intervention or assess its effectiveness.

Thus, this report includes a benefit-cost analysis for only about one-fifth of the 159 programs submitted in the program inventories.

Agencies indicate that supporting the use of evidence-based programs and determining their effects is the correct approach to providing state-supported services. One difficulty appears to be the shortage of staff necessary to devote to the efforts required to monitor and collect program data. However, the difficulties associated with compiling a program inventory should not outweigh the importance of determining the efficacy and efficiencies of programs on which the state spends millions of dollars.

III. BENEFIT-COST ANALYSES

RESULTS FIRST MODEL

Results First employs a sophisticated econometric model to analyze the costs and benefits of potential investments in public programs. The model applies the best available national rigorous research on program effectiveness to predict the public safety and fiscal outcomes of each program category in Connecticut, based on our unique population characteristics and the costs to provide these programs in the state. For each potential investment, the model produces separate projections of benefits that would accrue to program participants, nonparticipants, and taxpayers. The model then calculates the cost of producing these outcomes and the return on investment that Connecticut can expect to achieve if each program is appropriately funded and implemented with fidelity.

In order to apply the Results First model, IMRP needed to have the following information included in the program inventory:

1. the program name and description;
2. whether the program is included in the Results First model;
3. participant data; and
4. FY 2019 cost and budget information, including the marginal cost.

COST AND BUDGET DATA

Generally, the cost of a program includes fixed costs (those that are incurred regardless of how many people participate in a program) and variable costs (those that are dependent on the number of program participants). Step-fixed costs are those that would increase or decrease with a more significant change in a program's workload or participation level.

For purposes of applying the Results First benefit-cost analysis (BCA) model, it is better to know the marginal cost for program participants, that is, the cost to provide the program to one more person or unit of service, rather than an average cost, which includes fixed costs and can overstate the BCA. Marginal costs are preferred in the calculation of benefit-cost analyses because justice system costs tend to be incremental, for items like clothing, food, and some services. Average costs per participant include fixed costs and overestimate potential savings from reduced recidivism. Although in the case of a program contracted to a private provider that charges costs on a per participant basis, the average and the marginal costs are the same, for purposes of the Results First model.

CONNECTICUT'S EVIDENCE-BASED PROGRAMS AND BENEFIT-COST ANALYSES

By law, in its program inventory, each agency had to identify its own programs that it found are evidence-based (as indicated in the Results First Clearinghouse Database) and match those that are in the Results First model. Discussion between an agency and the Results First team at IMRP resolved any questions on the proper program match as well as issues related to a program's marginal cost, as reported by the agency. Generally, IMRP deferred to an agency's team and any adjustments were reviewed and approved by the agency.

The JB-CSSD, DCF, and DOC program inventories listed programs they administered in FY 19. They also identified the programs that they determined are evidence-based, referring to the Results First model and the clearinghouse database. They completed the participant and cost and budget worksheets that asked for FY 19 data on marginal cost per participant (an essential element of the benefit-cost analysis formula). Note that JB-CSSD offers services that include more than one program. We describe the distinctions below. (The lists of all evidence-based programs from the inventories appear in Tables 3, 4, and 5 showing a significant number of programs offered by these agencies [and the percentage of the spending they report in each inventory] are evidence-based.)

For this report however, in most cases, IMRP was unable to apply the Results First model for purposes of calculating the benefit-cost analysis. Of all an agency's programs whose data is in the program inventory, Tables 1 and 2 below show only those that are evidence-based and in the Results First model that also include the program's required marginal cost per participant.

Judicial Branch – Court Support Services Division

The Results First model is designed to calculate a benefit-cost ratio for specific, separate evidence-based programs. In some cases, JB-CSSD contracts with providers to offer a service for clients based on their needs and risks that includes two or more evidence-based programs. Clients receive various individual and different combinations of programs. Because the participant and cost data for these programs is aggregated at the service level and not calculated for a particular program, the Results First model cannot be applied.

An example of such a "service" is Linking Youth to Natural Community (LYNC) which includes the following "programs": Parenting with Love and Limits, Aggression Replacement Training, Seeking Safety for Adolescents, Cognitive Behavioral Therapy (CBT) for juvenile offenders, and other family-based therapies. Some of these programs are evidence-based, but not all. Furthermore, a participant might receive one or more programs from this service. In the future, IMRP and JB-CSSD will explore how best to modify the agency's financial and accounting procedures to permit a breakdown of program delivery that would permit application of the Results First model to these different interventions. A resolution of this issue will permit JB-CSSD to analyze the administration and charges for a single program across multiple providers and identify the most effective "programs" provided under the designation of one "service."

For FY 19, JB-CSSD identified 13 adult criminal justice programs, including one service with combined programs. Eight of the 13 are evidence-based. The division submitted the marginal cost for four of its programs. IMRP could apply the model to two of them (see Table 1).

JB-CSSD identified 12 programs, including services with combined programs available to justice-involved juveniles. Nine of the 12 are evidence-based, including five services that include multiple evidence-based programs. The division submitted the marginal cost for five of its programs. IMRP could apply the model to three programs for which the agency supplied marginal costs. The benefit-cost analyses for those are also in Table 1.

Department of Children and Families

DCF provided an inventory of 46 programs, 11 of which are identified as evidence-based. However because these fall outside the policy areas currently supported by the Connecticut model, IMRP cannot calculate their benefit-cost ratios. Currently, the model supports Adult and Juvenile Criminal Justice policy areas only.

IMRP must expand its model application to include programs in the child welfare, child mental health, and youth substance abuse policy areas in order to calculate a Connecticut-specific benefit-cost ratio. This expansion will require collaboration in data collection efforts with the departments of Education, Children and Families, and Mental Health and Addiction Services. IMRP began this project in early 2019.

Department of Correction

DOC lists 88 programs in its FY 19 inventory that cost a total of \$52.3 million. Of those program offerings, 65 are evidence-based, five are identified as research-based, and the remaining 18 are promising practices. For purposes of running the Results First model to analyze programs, some DOC programs are grouped together. They are: (1) Tier Two and Four – Addiction Services; (2) USD #1 Academic Education (four programs), English as a Second Language, and GED/High School Diploma; and (3) the 20 programs under USD #1 Vocational Education. For 33 of the evidence-based programs in the program inventory, marginal costs could be used to calculate a benefit-cost analysis as shown in Table 2.

Due to a change in the calculation of the marginal cost between 2018 and 2019, the benefit-cost ratio for the same programs may be higher in 2019. This may be attributed to using step-fixed cost for a group divided by the number of individuals in a group versus the group itself.

Benefit-Cost Comparisons

Tables 1 and 2 below show the program inventory data for the five JB-CSSD programs (two adult and three juvenile) and 33 adult DOC programs that are included in the Results First model for which the agency was able to calculate a marginal cost for the program. With this data and for these programs, IMRP is able to present the benefit-cost ratio. The data in the tables show the following:

- *Total benefits:* The sum of long-term benefits to taxpayers and society that result from one person's participation in a program.
- *Benefits to Participants:* The monetary gains (or losses) to the program participant from avoiding a technical violation.
- *Taxpayer Benefits:* The benefit from a governmental or budgeting perspective. For example, state and local criminal justice expenses avoided as a result of programming that reduces future crime resulting in convictions. Taxpayer costs avoided include police arrests, court adjudication, prison detention and incarceration, and probation or parole supervision.
- *Non-Taxpayer Benefits:* Benefits other than state and local resources to individual persons who would be affected by crime. For adult criminal justice and juvenile justice programs, non-taxpayer benefits are calculated using costs associated with avoided victimization, including tangible (e.g., medical expenses, cash or property theft, or lost earnings due to injury) and intangible costs (e.g., pain and suffering resulting from being a crime victim).
- *Other Indirect Benefits:* Avoided expenses or additional costs related to the increased tax burden to fund the program. A positive value represents a net reduced tax burden to fund

the criminal justice system. A negative value represents the net increased tax burden to pay for the program.

- *Costs*: The incremental cost of providing a program, service, or policy to an additional client, participant, or specific population. Program costs do not include fixed costs, such as rent or utilities, unless these costs are essential to the program's operation. Connecticut Results First estimated program costs using FY 2019 budgetary data.
- *Benefits minus Costs (Net Present Value)*: The difference between the present value of discounted cash inflows (benefits) from a given program and the present value of cash outflows (costs). A program with a net present value of \$1,000 produces \$1,000 in benefits per participant after subtracting the costs of participation.
- *Benefit-to-cost Ratio*: The ratio of a program's monetary benefits (or losses) to program costs. A ratio greater than 1 is favorable. For example, if a program's benefit-to-cost ratio is \$6.60, its net benefit to society is \$6.60 for every \$1 invested.
- *Odds of a positive net present value*: The percentage of time we can expect benefits to exceed costs after running the benefit-cost analysis 1,000 times, in this case.

**Table 1: Benefit-Cost Analyses Comparisons: Judicial Branch-Court Support Services Division Programs
(2019 Dollars)**

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio (Benefits for every \$1 of cost)</i>	<i>Odds of a Positive Net Present Value</i>
ADULT									
<i>Cognitive Behavioral Therapy (CBT) for individuals classified as high- or moderate-risk (Non-name brand only)</i>									
Advanced Supervision Intervention & Support Team/Start Now (12043 & 90626)	\$10,911	-	\$5,310	\$2,940	\$2,661	(\$75)	\$10,836	\$145.48	100%
<i>Sex Offender Treatment in the Community</i>									
Adult Sex Offender Treatment Services (12043, 90281)	6,869	-	1,440	4,716	714	(29)	6,840	236.86	80%
JUVENILE									
<i>Sex Offender Treatment (non-MST) for Juvenile Offenders</i>									
Adolescent Sexual Behavior Treatment and Education (12105)	\$16,265	\$602	\$6,531	\$6,079	\$3,053	(\$263)	\$16,002	\$61.84	65%
<i>Multisystemic Therapy (MST)</i>									
Multisystemic Therapy (12105, 12375)	14,880	715	5,070	6,960	2,135	(501)	14,379	29.70	98%
<i>Multidimensional Treatment Foster Care</i>									
Treatment Foster Care Oregon – Adolescent (16043)	14,861	14	4,629	13,397	(3,180)	(10,952)	3,909	1.36	62%

Note: Includes Deadweight Cost of Taxation and 1,000 Monte Carlo Simulations

**Table 2: Benefit-Cost Analyses Comparisons: Department of Correction Programs
(2019 Dollars)**

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio (Benefits for every \$1 of cost)</i>	<i>Odds of a Positive Net Present Value</i>
<i>Cognitive Behavioral Therapy Non-Name Brand Only (High and moderate risk offenders)</i>									
Anger Management Program (10010)	\$6,599	(\$10)	\$3,231	\$1,798	\$1,580	(\$72)	\$6,527	\$91.65	93%
Security Risk Group – Phase 1 (10010)	6,946	(2)	3,389	1,912	1,647	(42)	6,904	165.38	93%
Security Risk Group – Phase 2 (10010)	6,567	(15)	3,254	1,849	1,480	(273)	6,294	24.05	91%
Security Risk Group – Phase 3 (10010)	6,707	(13)	3,273	1,851	1,595	(52)	6,655	128.98	92%
Security Risk Group – Phase 4 (10010)	6,644	(16)	3,252	1,845	1,563	(62)	6,582	107.16	92%
Security Risk Group – Phase 5 (10010)	6,804	(14)	3,299	1,875	1,643	(23)	6,781	295.83	93%
Start Now: Unit 1 (10010)	6,847	(5)	3,334	1,888	1,630	(138)	6,709	49.62	94%
Start Now: Unit 2 (10010)	6,822	(6)	3,302	1,873	1,654	(121)	6,701	56.38	93%
Start Now: Unit 3 (10010)	6,588	(8)	3,254	1,847	1,495	(176)	6,412	37.43	92%
Start Now: Unit 4 (10010)	6,661	(8)	3,254	1,842	1,573	(112)	6,549	59.47	92%
Unlock Your Thinking includes Behavior Intervention (10010)	6,351	(33)	3,094	1,764	1,526	(49)	6,302	129.61	90%
<i>Correctional Education in Prison (Basic Skills)</i>									
USD #1 Adult Basic Education (10010)	19,787	-	9,937	6,554	3,296	(3,381)	16,406	5.85	100%

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio (Benefits for every \$1 of cost)</i>	<i>Odds of a Positive Net Present Value</i>
<i>Electronic Monitoring (Parole)</i>									
Electronic Monitoring (10020)	2,879	-	1,103	616	1,161	1,220	4,099	N/A	100%
<i>Inpatient/Intensive Outpatient Drug Treatment (Incarceration)</i>									
Medication Assisted Treatment (MAT) (10010)	10,637	-	5,015	3,298	2,325	(320)	10,317	33.24	99%
Intensive Aftercare Program – Facility Addiction Services (10010)	10,645	-	4,982	3,282	2,381	(234)	10,411	45.49	99%
<i>Inpatient/Intensive Outpatient Drug Treatment (Community)</i>									
DUI Home Confinement Program: Track 1 (10010)	(2,659)	(617)	41	239	(2,322)	(51)	(2,710)	(52.14)	35%
DUI Home Confinement Program: Track 2 (10010)	(1,282)	(340)	169	240	(1,352)	(110)	(1,392)	(11.65)	42%
DUI Home Confinement Program: Track 3 (10010)	(3,007)	(503)	54	208	(2,767)	(894)	(3,901)	(3.36)	28%
DUI Home Confinement Program: Track 4 (10010)	(7,040)	(519)	78	235	(6,835)	(7,084)	(14,124)	(0.99)	4%
<i>Life Skills Education</i>									
Embracing Fatherhood (10010)	(1,287)	-	(585)	(382)	(320)	(86)	(1,373)	(14.97)	39%
Life Skills: A New Freedom (10010)	(1,016)	-	(412)	(281)	(323)	(233)	(1,249)	(4.36)	41%
<i>Outpatient/Non-intensive Drug Treatment (Incarceration)</i>									
Good Intentions – Bad Choices (10010)	8,201	-	3,824	2,524	1,853	(90)	8,111	91.12	99%

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio (Benefits for every \$1 of cost)</i>	<i>Odds of a Positive Net Present Value</i>
Technical Violators Program (TOP) (10010)	8,382	-	3,914	2,577	1,891	(142)	8,240	59.03	99%
Seven Challenges (10010)	8,125	-	4,040	2,661	1,424	(1,179)	6,946	6.89	98%
<i>Sex Offender (Incarceration)</i>									
Sex Offender Treatment Program (10010)	6,005	-	2,169	3,355	481	(1,243)	4,762	4.83	91%
Sex Treatment Track Two Group (10010)	5,844	-	2,204	3,409	231	(1,738)	4,106	3.36	88%
Short Term Sex Offender Program (10010)	6,802	-	2,249	3,476	1,078	(121)	6,681	56.21	98%
<i>Therapeutic Communities for Chemically Dependent Offenders (Incarceration)</i>									
Tier One Addiction Services (10010)	12,685	904	4,013	2,379	5,389	(65)	12,620	195.15	97%
Tiers Two and Four Addiction Services (10010)	12,989	977	4,043	2,367	5,601	(174)	12,815	74.65	97%
<i>Violence Reduction Treatment</i>									
Domestic Violence – Facility-based (10010)	1,546	-	645	620	281	(86)	1,460	17.98	55%
Beyond Violence: A Prevention Program for Women (10010)	1,808	-	773	677	357	(70)	1,738	25.83	61%

<i>Program Name Appropriated Program Name (SID #)</i>	<i>Total Benefits</i>	<i>Benefits to Participants</i>	<i>Taxpayer Benefits</i>	<i>Non- Taxpayer Benefits</i>	<i>Other Indirect Benefits</i>	<i>Costs</i>	<i>Benefits minus Costs (Net Present Value)</i>	<i>Benefit to Cost Ratio (Benefits for every \$1 of cost)</i>	<i>Odds of a Positive Net Present Value</i>
Stress & Management & Relaxation (10010)	931	-	606	344	(19)	(596)	335	1.56	54%
<i>Vocational Education in Prison</i>									
USD #1 – Vocational Education (10010)	13,449	-	6,902	4,550	1,997	(2,898)	10,551	4.64	95%

Note: Includes Deadweight Cost of Taxation and 1,000 Monte Carlo Simulations

* The model calculation includes an alternative program comparison cost, such as incarceration in this case, and this is more expensive than Electronic Monitoring. When a comparison cost is greater than the program cost, the net result will be a gain, rather than an expense, which is added to the benefits. A benefit-cost ratio is not calculated in such cases where the comparison cost is greater than the program cost because the equation is not logical. A positive net present value suggests that the program option is an efficient or cost-effective investment.

IV. PROGRAM INVENTORIES

EVIDENCE-BASED PROGRAM INVENTORY INFORMATION BY AGENCY

In October 2019, JB-CSSD, DCF, and DOC submitted inventory spreadsheets to IMRP. There was significant additional contact to clarify certain components of the information in order for IMRP to begin its work compiling the benefit-cost analysis portion of the project.

Tables 3, 4, and 5 list the programs or services that JB-CSSD, DCF, and DOC respectively identified as evidence-based, but not all of them could be included in the agency tables above with a benefit-cost analysis. Nevertheless, the tables below show important details as reported in the agency program inventories for the evidence-based programs and services they manage in Connecticut. General benefit information on evidence-based programs may be seen at [Washington State Institute for Public Policy](#) and [Results First Clearinghouse Database](#).

The fields shown in the table below are defined as follows:

- *Program Name:* The specific, formal program name of the program.
- *Service Name:* In the case of JB-CSSD, more than one program may be included in a service. Program treatments vary and are based on the participant's risk and needs.
- *Evidence-Based Programs Offered:* The name(s) of the program found in the Results First Initiative program summaries that is similar to the Connecticut program. Results First Program Summaries describe the studies that WSIPP used to conduct the meta-analysis and calculate the average effect size of each program in the model.
- *Number of Participants Served:* The number of clients treated (regardless of program completion) in state FY 2019.
- *Budget:* The total amount budgeted by the agency for the program or service for the year.
- *Percent of Total FY 19 Program Inventory Budget:* The program cost as a percentage of the total budgeted amount for programs listed in the agency's program inventory. This is not the spending on a particular program compared to all agency program expenditures or to the entire agency budget.

The shaded programs are included in the Benefit-Cost Analyses tables above.

Judicial Branch – Court Support Services Division

We address JB-CSSD differently in the case where two or more “programs” are offered within a single designated “service.” Table 3 shows data from JB-CSSD's Adult and Juvenile program inventories the separate listings for (1) programs and (2) services, including the evidence-based programs offered within each.

For FY 19, JB-CSSD identified 13 adult criminal justice programs. Eight of the 13 are evidence-based including one service that includes multiple programs.

JB-CSSD identified 12 programs available to justice-involved juveniles. Nine of the 12 are evidence-based, including five that are offered through a service.

Table 3: Judicial Branch-Court Support Services Division Evidence-Based Program Inventory Information

<i>Program Name</i>	<i>Evidence-Based Program Offered</i>	<i>Number of Participants Served</i>	<i>Program Budget FY 19</i>	<i>Percent of Total Program Inventory Budget*</i>
ADULT				
Adult Behavioral Health Services	Seeking Safety	15,327	\$18,087,546	33%
Adult Sex Offender Treatment Services	Treatment in the community for individuals convicted on sex offenses	1,682	3,269,346	6%
Advanced Supervision Intervention & Support Team/Start Now ²	Cognitive behavioral therapy (CBT) for individuals classified as high- or moderate-risk (Non-name brand only)	345 (CSSD) 117 (DMHAS)	849,626	1.5%
Electronic Monitoring	Electronic monitoring - probation	3,812	1,290,037	2%
Domestic Violence – EVOLVE	Domestic violence perpetrator treatment (Duluth-based model)	835	1,042,752	2%
Domestic Violence – EXPLORE	Domestic violence perpetrator treatment (Duluth-based model)	2,303 (CSSD) 819 (Parole)	1,915,152	3%
Family Violence Education Program	Domestic violence perpetrator treatment (Duluth-based model)	3,958	1,108,295	2%
<i>Service Name</i>	<i>Evidence-Based Programs Offered</i>	<i>Number of Participants Served</i>	<i>Budget FY 19</i>	<i>Percent of Total Program Inventory Budget*</i>
Alternative in the Community	Cognitive behavioral therapy (CBT) for individuals classified as high- or moderate-risk Motivational interviewing to enhance treatment engagement	7,945 (CSSD) 286 (Parole)	16,174,472	29%
Total Expenditures on Evidence-Based Programs and Services			\$43,737,226	79%
Total Expenditures on All Programs Reported in Program Inventory*			\$55,208,774	

Notes: Highlighted programs are included the benefit-cost analyses.

* Additional program expenditures may have occurred.

² A collaboration between JB-CSSD, DOC, and DMHAS to provide a community-based alternative to incarceration.

<i>Program Name</i>	<i>Evidence-Based Programs Offered</i>	<i>Number of Participants Served</i>	<i>Program Budget FY 19</i>	<i>Percent of Total Program Inventory Budget*</i>
JUVENILE				
Adolescent Sexual Behavioral Treatment and Education	Sex offender treatment (non-MST) for juveniles convicted of sex offenses	60	714,655	3%
Multisystemic Therapy	Multisystemic Therapy	117	3,643,959	15%
Treatment Foster Care Oregon - Adolescent	Multidimensional Treatment Foster Care	4	527,457	2%
Youth Mentoring	Mentoring	55	461,442	2%
<i>Service Name</i>	<i>Evidence-Based Programs Offered</i>	<i>Number of Participants Served</i>	<i>Budget FY 19</i>	<i>Percent of Total Program Inventory Budget*</i>
Boys Therapeutic Respite and Assessment Center	Cognitive Behavioral Therapy for child trauma Cognitive Behavioral Therapy for juvenile offenders	30	1,463,464	6%
Intermediate Residential	Multidimensional Family Therapy for substance abusers Cognitive behavioral therapy for juvenile offenders	42	3,030,476	13%
Journey House	Dialectical Behavioral Therapy (DBT) for youth	28	3,561,532	15%
Juvenile Staff Secure Residential Facility (JSSRF)	Cognitive Behavioral Therapy for child trauma Cognitive Behavioral Therapy for juvenile offenders	50	3,568,863	15%
Linking Youth to Natural Community	Parenting with Love and Limits Aggression Replacement Training Cognitive behavioral therapy for juvenile offenders Other family-based therapies	177	3,871,832	16%
Total Expenditures on Evidence-Based Programs and Services			\$20,843,680	86%
Total Expenditures on All Programs Reported in Program Inventory*			\$24,242,971	

Notes: Highlighted programs are included the benefit-cost analyses. * Additional program expenditures may have occurred.

Department of Children and Families

On October 1, the Department of Children and Families submitted its program inventory with data for 46 programs. Of these, 11 are identified as evidence-based programs that comprise 20% of the department's program budget. Another six are classified in the Clearinghouse Database as a promising practice. The number of program participants and the separate budget for each for the 2019 fiscal year are shown in Table 4 below.

DCF supports evidence-based programs that match those in the Results First model. However, these fall outside the policy areas currently supported by the Connecticut model which would allow benefit-cost ratios to be calculated. Currently, the model supports Adult and Juvenile Criminal Justice policy areas only. IMRP must expand its model application to include programs in the child welfare, child mental health, and youth substance abuse policy areas in order to calculate a Connecticut-specific benefit-cost ratio. This expansion will require collaboration in data collection efforts with the departments of Education, Children and Families, and Mental Health and Addiction Services. IMRP began this project in early 2019.

Table 4: Department of Children and Families Evidence-Based Program Inventory Information

<i>Program Name</i>	<i>Number of Participants Served</i>	<i>Program Budget</i>	<i>Percent of Total Program Inventory Budget*</i>
Adolescent Community Reinforcement Approach/Assertive Continuing Care	412	\$1,243,508	0.8%
Care Coordination	719	2,800,204	1.80%
Cognitive Behavior Intervention for Trauma in Schools	280	380,514	0.24%
Early Childhood Services (Child First)	493	5,211,267	3.34%
Functional Family Therapy	645	1,807,495	1.16%
Multidimensional Family Therapy	1,260	8,925,807	5.72%
Multisystemic Therapy (MST)	214	1,884,472	1.21%
MST: Emerging Adults	66	577,500	0.37%
MST: Problem Sexual Behavior	96	1,761,023	1.13%
Reunification with Therapeutic Family Time	890	6,512,515	4.18%
Zero to Three	40	123,121	0.08%
Total Expenditures on Evidence-Based Programs		\$31,227,426	20%
Total Expenditures on All Programs Reported in Program Inventory*		\$155,954,199	

*Additional program expenditures may have occurred.

Department of Correction

The Department of Correction provided a comprehensive listing of 88 programs in its inventory of programs, six of which are basic academic education programs and 20 are different vocational education programs. (Last year's total of 130 programs listed in the DOC inventory included 58 that were not offered or cancelled in FY 18 or for which cost and program statistics were not available; hence the difference and the fewer number of programs included in the 2019 inventory.) Of the 88 DOC programs, 65 are evidence-based, and 33 match a program in the Results First model—with the (1) Tier Two and Four Addiction Services, (2) the six basic education

programs and (3) the 20 vocational education programs combined as three. Those for which marginal costs could be calculated (highlighted below), also appear in Table 5.

Table 5: Department of Correction Evidence-Based Program Inventory Information

<i>Program Name</i>	<i>Number of Participants Served</i>	<i>Program Budget</i>	<i>Percent of Total Program Inventory Budget*</i>
Alternatives to Violence – Advanced Workshops	159	\$0 (Volunteer)	0%
Alternatives to Violence – Basic Workshops	357	0 (Volunteer)	0%
Anger Management Program	577	42,525	0.08%
Beyond Violence: A Prevention Program for Women	131	1,890	<0.01
Charlene Perkins Center	13	0 (Volunteer)	0%
Domestic Violence-Facility Based	999	89,303	0.17%
DUI Home Confinement Program: Tracks 1 – 4	525	142,556	0.28%
Electronic Monitoring	1,974	650,220	1.24%
Embracing Fatherhood	106	9,450	0.02%
Good Intentions - Bad Choices	691	63,788	0.12%
Intensive Aftercare Program – Facility Addiction Services	161	38,851	0.07%
Life Skills - A New Freedom	23	5,544	0.01%
Medication Assisted Treatment (MAT) (Methadone Treatment Program [MTP])	721	236,750	0.45%
Non-Residential Behavioral Health\Domestic Violence\Sex Offender	1,377	1,191,973	2.28%
People Empowering People	77	0 (Volunteer)	0%
Residential Mental Health\Substance Abuse\Sex Offender	817	5,052,206	9.65%
Residential Temporary and Scattered Site Supportive Housing	868	7,055,445	13.5%
Residential Work Release (including 20 providers)	3,015	20,179,699	38.6%
Security Risk Group Program Phases 1 – 5	640	41,013	0.08%
Seven Challenges	31	33,995	0.06%
Sex Treatment Program	7	8,938	0.02%
Sex Treatment Track Two Group	5	8,938	0.02%
Short-Term Sex Offender Program	179	22,345	0.04%
Start Now: Units 1- 4	123	16,883	0.04
Stress & Management & Relaxation (SMARTS)	21	12,911	0.02%
Technical Violators Program (TOP Program)	416	60,705	0.12%
Thresholds	92	0 (Volunteer)	0%
Tier One Addiction Services	365	24,586	0.05%
Tier Two Addiction Services	1,611	306,560	0.59%
Tier Four Addiction Services	571	97,128	0.19%
Unlock Your Thinking includes Behavior Intervention	60	3,024	0.01%
USD #1 - ABE – ESL - GED	3,282	11,449,825	21.88%
USD #1 – College	0	0	0
USD #1 Life Skills	23	68,556	0.13%
USD #1 - Voc.Ed.: Auto Body Technology	88		

<i>Program Name</i>	<i>Number of Participants Served</i>	<i>Program Budget</i>	<i>Percent of Total Program Inventory Budget*</i>
USD #1 - Voc.Ed.: Automotive Technology	98	4,220,651	8.1%
USD #1 – Voc.Ed.: Auto Detailing	15		
USD #1 - Voc.Ed.: Bicycle/Wheelchair Repair	35		
USD #1 - Voc.Ed.: Building Maintenance	13		
USD #1 - Voc.Ed.: Business Education	198		
USD #1 - Voc.Ed.: Carpentry	69		
USD #1 - Voc.Ed.: Commercial Cleaning	57		
USD #1 - Voc.Ed.: Computer Education	154		
USD #1 - Voc.Ed.: Computer Repair	89		
USD #1 - Voc.Ed.: Cosmetology/Barbering	92		
USD #1 - Voc.Ed.: Culinary Arts	135		
USD #1 - Voc.Ed.: Drafting CAD/CAM	31		
USD #1 - Voc.Ed.: Electro-Mechanical	54		
USD #1 - Voc.Ed.: Electronics	-		
USD #1 - Voc.Ed.: Graphic & Printing Technology	102		
USD #1 - Voc.Ed.: Horticulture/ Landscape	29		
USD #1 - Voc.Ed.: Hospitality Operations/ Technology	31		
USD #1 - Voc.Ed.: Machine Tool	105		
USD #1 - Voc.Ed.: Small Engine Technology	21		
Total Expenditures on Evidence-Based Programs		\$51,136,258	97.8%
Total Expenditures on All Programs Reported in Program Inventory*		\$52,330,025	

*Additional program expenditures may have occurred.

Department of Mental Health and Addiction Services

With its focus on criminal justice programs, the original Results First legislation applied to DMHAS' Division of Forensic Services, which implements and coordinates specially-skilled evaluation and treatment services for individuals with serious mental illness or substance use disorders who become involved in the criminal justice system. Its 2016 program inventory was submitted to IMRP, listing the data for programs it offers to those clients.

According to the department, because its funding of programs is based on level of care rather than specific evidence-based practices, many hours of fiscal and program staff time over the past year have been devoted to developing a framework for its program inventory. DMHAS is committed to continuing to work on the project to comply with the intent of the Results First legislation.

Department of Social Services

The Department of Social Services did not submit its 2019 program inventory; however, in communications with IMRP it expressed interest in developing a list of current programs and descriptions. The IMRP Results First team is committed to working with DSS to determine which of those programs are evidence-based and how to collect the data required by law.

As described above, the continued effort to expand the Results First model will enable IMRP to calculate benefit-cost analyses of those DSS programs that are evidence-based, in the model, and for which we have the appropriate data, including marginal costs.

V. FINDINGS AND RECOMMENDATIONS

ASSESSMENT OF COMPLIANCE

After the expansion of the Results First project was enacted in October 2017, the affected agencies became aware then of the implications and the requirement to complete program inventories by the October 1 deadline. The Results First Connecticut staff contacted those agencies previously required to comply (JB-CSSD, DOC, DCF, and DMHAS) as well as the Department of Social Services (added through the 2017 legislation) to reiterate the new requirement to include all agency programs.

As indicated in this report, JB-CSSD, DCF, and DOC submitted program inventories and continued corresponding with the IMRP Results First team to resolve issues and questions regarding data and program operations and evidence-based designations in their inventories. In the future, IMRP and JB-CSSD will explore the research and methodology required to disaggregate the data it collects on the services it operates. Such a development would allow IMRP to calculate a separate benefit-cost ratio for each evidence-based program JB-CSSD offers within those so-called services.

The departments of Mental Health and Addiction Services and Social Services did not submit program inventories. However, each has responded to IMRP's outreach efforts and indicated it will submit program information that can be published in an addendum to this report. IMRP will confer and attempt to remedy difficulties such as insufficient information about or their understanding of the project and its utility, or any lack of data required to complete the inventory. It seems that more and closer collaboration would improve the results.

FINDINGS, RECOMMENDATIONS AND NEXT STEPS

The Institute for Municipal and Regional Policy (IMRP) supports the principles of a deliberative, transparent, and outcome-based approach to policymaking. The Pew-MacArthur Results First Initiative allows states access to a cost benefit model that brings these principles to multiple policy areas, by assisting in determining "what works" on a programmatic level. The original model was devised by the Washington State Institute for Public Policy (WSIPP) – a nationally recognized leader in facilitating state-level evidence-based policymaking.

Since 2011, the IMRP has committed itself to a vigorous implementation of the Connecticut Results First Initiative. As such, the IMRP developed relationships with those agencies required to complete the work needed to complete program inventories and apply the Results First model. Beyond that, the IMRP has reached out to the Office of Policy and Management and the General Assembly (legislative leaders, the Appropriations Committee, and staff) to promote the use of evidence-based programs and the benefit-cost analyses IMRP publishes.

Yet more could be done. If this approach is to be fully implemented in Connecticut, policy- and budget-decisionmakers must not only recognize the advantages and applications of Results First but must also support its integration into agency practices and the budget process, from initial development to enactment by the legislature. To realize its "highest and best use," this econometric tool must be supported and utilized by all the intended stakeholders. Does the state prioritize the

use of evidence-based programs? What is the value of Results First in determining the allocation of state resources to achieve agreed-upon policy outcomes? These questions linger a full eight years after Connecticut's establishment as a Results First site.

Other states such as [Minnesota](#) and [Colorado](#) provide good examples of effective and comprehensive application of the Results First Initiative. The Minnesota Management and Budget Office (MMB) oversees the Results First Initiative there. A team of MMB analysts works with legislators, state agency and county officials, and practitioners to develop that state's inventories and reports. Since 2018, agencies must complete MMB's budget proposal form documenting evidence-based program results. Newly-elected Governor Walz based parts of his 2019 proposed budget on the information and legislators use the forms to prioritize evidence-based proposals. The MMB Results First team maintain program assessments in a database, the Minnesota Inventory. In addition, two MMB evidence policy specialists maintain an archive of benefit-cost analyses. A November 2019 Pew issue brief reports that the MMB Commissioner Frans "finds it rewarding to make possible the use of quality evidence in decision-making processes." Legislators recognize the importance of a "culture of evidence" in long-term fiscal management, particularly when anticipating a downturn in the economy. In 2018, MMB's Results First Initiative was a recipient of the University of Minnesota's Humphrey School of Public Affairs' State Government Innovation Award.

Likewise, in Colorado the Results First team works in the Office of State Planning and Budgeting (OSPB) and has produced inventories and reports in the areas of adult criminal and juvenile justice, child welfare, behavioral health, prevention, and health policies. The OSPB's Results First team coordinates with and provides support to the Performance Management and Pay for Success units in the Governor's Office. More importantly, it consistently builds research, evidence, and data into the state's budget process. In developing the budget, OSPB (1) requires agencies to document research and demonstrated program effectiveness in their budget requests; (2) runs predictive benefit-cost analyses and evaluation designs; and (3) include Results First benefit-cost findings, when possible. In addition, a 2007 update notes that the Colorado Results First team "coordinates with the Governor's Office chief operating officer on a long-term vision for sustaining good government practices" and offers training on evidence-based policymaking and benefit-cost analyses to stakeholders, including legislators.

When the goal is to "find out" what programs are proven to work and maximize the benefits of taxpayer-funded spending, agencies in these states utilize evidence-based programs and have the built-in capacity to measure its program costs and benefits. The most effective way to implement the Results First approach requires agencies to develop an accounting system that produces cost data by program and a formula for calculating its marginal costs. Armed with the benefit-cost ratio supplied by IMRP, the state budget office can then use this tool to help determine appropriate budget allocations to recommend to the governor and the legislature. Concurrently, the General Assembly's Appropriations Committee, indeed all legislators, can make more informed decisions regarding the budget, approving program expenditures based on costs and outcomes.

The implementation of Results First in Connecticut to date confirms that a combination of additional resources and re-alignment of priorities must be devoted to this effort if the IMRP and state agencies are to comply with existing statutory requirements and reap the full benefits of this model. In order to calculate the benefit-cost ratio for programs in policy areas beyond adult criminal and juvenile justice, the Results First model must be updated with Connecticut-specific

data for education, adult mental health, public health, and child welfare. Staff with the knowledge and expertise to complete this project must be hired. In addition, based on positive interactions with the mandated agencies as they complete their critical element of the project, it is clear they must dedicate a considerable amount of time, effort, and resources to produce a usable program inventory. Agency budgets must include the funding to support their efforts. Moreover, IMRP determines that only with additional resources can the Institute (1) provide agencies with the technical assistance they require to complete program inventories, then (2) produce the benefit-cost analyses report. Beyond that, IMRP should continue to work throughout the year with the executive and judicial branches, as well as the legislature to educate decision-makers using the valuable information available through Results First Connecticut.

With the publication of this report, IMRP recommends the following:

- IMRP will convene follow-up meetings with the agency staff who worked on program inventories to determine what worked, the challenges experienced, any improvements to the process and the program inventory template, and lessons learned.
- Each mandated agency will identify its programs that are evidence-based and review the Results First program summaries to clearly determine its own programs that match those in the Results First model. In addition, each agency should conduct research that disaggregates data and the budget for each program separately and its marginal cost. Finalizing this exercise in advance will facilitate preparation of the agency's program inventory by the statutory October 1 deadline.
- IMRP will formalize any changes to the operation of Results First in Connecticut and communicate them to the agencies using training sessions if needed, maintaining its relationships with the broader state Results First team.
- IMRP will use Results First data to prepare additional materials for stakeholders to use in the budget process. Outreach efforts will inform agency staff and policy- and budget-decisionmakers at all levels and in all branches of state government on the Results First assessment of evidence-based programs.
- IMRP will engage the secretary of the Office of Policy and Management and her appropriate staff to examine the utility of Results First in the work of that agency.
- To expand the Results First model to include additional policy areas, IMRP will solicit the collaboration and necessary cooperation of agencies and collect the Connecticut-specific data needed.
- IMRP will request resources to support the time, staff, and funding necessary to (1) expand the Results First model to include additional policy areas; (2) provide support and technical assistance to agencies preparing program inventories; and (3) support fuller integration of the Results First Initiative in state agencies, the Office of Policy and Management, and the General Assembly.

APPENDIX A

Program Inventories of Agency Programs and Cost-Benefit Analysis Report Statutory Requirements CGS §§ 4-68r and -68s, 4-68m, and 4-77c

CGS Sec. 4-68r. Definitions. For purposes of this section and sections 4-68s and 4-77c:

- (1) "Cost-beneficial" means the cost savings and benefits realized over a reasonable period of time are greater than the costs of implementation;
- (2) "Program inventory" means the (A) compilation of the complete list of all agency programs and activities; (B) identification of those that are evidence-based, research-based and promising; and (C) inclusion of program costs and utilization data;
- (3) "Evidence-based" describes a program that (A) incorporates methods demonstrated to be effective for the intended population through scientifically based research, including statistically controlled evaluations or randomized trials; (B) can be implemented with a set of procedures to allow successful replication in the state; (C) achieves sustained, desirable outcomes; and (D) when possible, has been determined to be cost-beneficial;
- (4) "Research-based" describes a program or practice that has some research demonstrating effectiveness, such as one tested with a single randomized or statistically controlled evaluation, but does not meet all of the criteria of an evidence-based program; and
- (5) "Promising" describes a program or practice that, based on statistical analyses or preliminary research, shows potential for meeting the evidence-based or research-based criteria.

CGS Sec. 4-68s. Program inventory of agency criminal and juvenile justice programs. Pilot program re Pew-MacArthur cost-benefit analysis of state grant programs. Report.

(a) Not later than October 1, 2018, and annually thereafter, the Departments of Correction, Children and Families, Mental Health and Addiction Services and Social Services and the Court Support Services Division of the Judicial Branch shall compile a program inventory of each of said agency's programs and shall categorize them as evidence-based, research-based, promising or lacking any evidence. Each program inventory shall include a complete list of all agency programs, including the following information for each such program for the prior fiscal year, as applicable: (1) A detailed description of the program, (2) the names of providers, (3) the intended treatment population, (4) the intended outcomes, (5) the method of assigning participants, (6) the total annual program expenditures, (7) a description of funding sources, (8) the cost per participant, (9) the annual number of participants, (10) the annual capacity for participants, and (11) the estimated number of persons eligible for, or needing, the program.

(b) Each program inventory required by subsection (a) of this section shall be submitted in accordance with the provisions of section 11-4a to the Secretary of the Office of Policy and Management, the joint standing committees of the General Assembly having cognizance of matters relating to children, human services, appropriations and the budgets of state agencies and finance, revenue and bonding, the Office of Fiscal Analysis, and the Institute for Municipal and Regional Policy at Central Connecticut State University.

(c) Not later than November 1, 2018, and annually thereafter by November first, the Institute for Municipal and Regional Policy at Central Connecticut State University shall submit a report containing a cost-benefit analysis of the programs inventoried in subsection (a) of this section to the Secretary of the Office of Policy and Management, the joint standing committees of the General Assembly having cognizance of matters relating to children, appropriations and the budgets of state agencies and finance, revenue and bonding, and the Office of Fiscal Analysis, in accordance with the provisions of section 11-4a.

(d) The Office of Policy and Management and the Office of Fiscal Analysis may include the cost-benefit analysis provided by the Institute for Municipal and Regional Policy under subsection (c) of this section in their reports submitted to the joint standing committees of the General Assembly having cognizance of matters relating to children, appropriations and the budgets of state agencies and finance, revenue and bonding on or before November fifteenth annually, pursuant to subsection (b) of section 2-36b.

(e) Not later than January 1, 2019, the Secretary of the Office of Policy and Management shall create a pilot program that applies the principles of the Pew-MacArthur Results First cost-benefit analysis model, with the overall goal of promoting cost-effective policies and programming by the state, to at least eight grant programs financed by the state selected by the secretary. Such grant programs shall include, but need not be limited to, programs that provide services for families in the state, employment programs and at least one contracting program that is provided by a state agency with an annual budget of over two hundred million dollars.

(f) Not later than April 1, 2019, the Secretary of the Office of Policy and Management shall submit a report, in accordance with the provisions of section 11-4a, to the joint standing committee of the General Assembly having cognizance of matters relating to appropriations and the budgets of state agencies. Such report shall include, but need not be limited to, a description of the grant programs the secretary has included in the pilot program described in subsection (e) of this section, the status of the pilot program and any recommendations.

Sec. 4-68m. Criminal Justice Policy and Planning Division. Duties. Collaboration with other agencies. Access to information and data. Reports. (a) There is established a Criminal Justice Policy and Planning Division within the Office of Policy and Management. The division shall be under the direction of an undersecretary.

(b) The division shall develop a plan to promote a more effective and cohesive state criminal justice system and, to accomplish such plan, shall:

(1) Conduct an in-depth analysis of the criminal justice system;

- (2) Determine the long-range needs of the criminal justice system and recommend policy priorities for the system;
- (3) Identify critical problems in the criminal justice system and recommend strategies to solve those problems;
- (4) Assess the cost-effectiveness of the use of state and local funds in the criminal justice system;
- (5) Recommend means to improve the deterrent and rehabilitative capabilities of the criminal justice system;
- (6) Advise and assist the General Assembly in developing plans, programs and proposed legislation for improving the effectiveness of the criminal justice system;
- (7) Make computations of daily costs and compare interagency costs on services provided by agencies that are a part of the criminal justice system;
- (8) Review the program inventories and cost-benefit analyses submitted pursuant to section 4-68s and consider incorporating such inventories and analyses in its budget recommendations to the General Assembly;
- (9) Make population computations for use in planning for the long-range needs of the criminal justice system;
- (10) Determine long-range information needs of the criminal justice system and acquire that information;
- (11) Cooperate with the Office of the Victim Advocate by providing information and assistance to the office relating to the improvement of crime victims' services;
- (12) Serve as the liaison for the state to the United States Department of Justice on criminal justice issues of interest to the state and federal government relating to data, information systems and research;
- (13) Measure the success of community-based services and programs in reducing recidivism;
- (14) Develop and implement a comprehensive reentry strategy as provided in section 18-81w; and
- (15) Engage in other activities consistent with the responsibilities of the division.

CGS Sec. 4-77c. Estimates of expenditure requirements for implementation of evidence-based programs. The Departments of Correction, Children and Families and Mental Health and Addiction Services, and the Court Support Services Division of the Judicial Branch may include in the estimates of expenditure requirements transmitted pursuant to section 4-77, and the Governor may include in the Governor's recommended appropriations in the budget document transmitted to the General Assembly pursuant to section 4-71, an estimate of the amount required by said agencies for expenditures related to the implementation of evidence-based programs.